From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: w7ni@teleport.com (Stan Griffiths)
Subject: 454 Help
Message-ID: <199509060731.AAA26858@desiree.teleport.com>

Mac, I was sorry to hear that your 454 bit the dust. It is certainly worth a lot of effort to get it going again. One thing you might check are the tunnel diodes in the sweep and trigger circuits. I have seen them go bad for no explainable reason. I have some 152-0125-00 TDs if you need them for $5 each. (Tek wants $38 each.) If you don't know if you need one or not, you can test your TDs on a 575 Curve Tracer. If you don't have access to a curve tracer, you can mail your TDs to me and I will test them on my 575 for you. I will send checked ones to you if I find a bad one.

You may recognize my name as the author of "OSCILLOSCOPES--Selecting and Restoring a Classic". I love old Tektronix scopes and I want to see yours run again. I own 454 S/N B010100 (the first one!) which I bought in a local estate sale. It was the estate of one of the design engineers who worked on the project. I guess you don't have to be dead to have an estate sale since he was there personally to sell me the instrument!

73, Stan Griffiths, W7NI   W7NI@teleport.com

PS All you guys . . . please try to spell Tektronix correctly, ok?

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: paul Veltman <veltman@netcom.com>
Subject: 5U4 vs. 5R4
Message-ID: <Pine.3.89.9509060733.A2000-0100000@netcom2>

Gang,
In my Collins power supplies, there are two rectifier tubes, a 5U4 and a 5R4. They have the same pin-outs and as far as I can tell, are completely interchangable. Does anyone with more knowledge than me (about 99.9% of you) know what the difference in these two tubes are and why Collins designed their power supplies this way?

73

Paul WA6OKQ

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Scott_Johnson-AZAX60@email.sps.mot.com
Subject: RE>5U4 vs. 5R4
Message-ID: <"Macintosh */PRMD=MOT/ADMD=MOT/C=US/"@MHS>

RE>5U4 vs. 5R4 9/6/95
5R4= higher piv, lower current fil 5v@2A
5U4= lower piv, higher current fil 5v@3A
Don't interchange, as the 5R4 filament winding may not handle the extra ampere.
You can see a physical difference in the plate to filament spacing if you look hard, but the tubes are very similar.

-,
In my Collins power supplies, there are two rectifier tubes, a 5U4 and a 5R4. They have the same pin-outs and as far as I can tell, are completely interchangable. Does anyone with more knowledge than me (about 99.9% of you) know what the difference in these two tubes are and why Collins designed their power supplies this way?

73

Paul WA6OKQ

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: dlkerl@elvis.b11.ingr.com (Dan Kerl)
Subject: Re: 5U4 vs. 5R4
Message-ID: <199509061558.AA22737@elvis.b11.ingr.com>

in one corner...
5U4-G:

fil: 5.0V, 3.0A
max dc output current: 225 mA
max PIV: 1550 V
max RMS per plate: 450 VAC
max peak current per plate: 800 mA
drop: 44V @ 225 mA DC

5U4-GA:

fil: 5.0V, 3.0A
max dc output current: 250 mA
max PIV: 1550 V
max RMS per plate: 450 VAC
max peak current per plate: 900 mA
drop: 44V @ 225 mA DC

5U4-GB:

fil: 5.0V, 3.0A
max dc output current: 275 mA
max PIV: 1550 V
max RMS per plate: 450 VAC
max peak current per plate: 1 A
drop: 50V @ 275 mA DC

and in the other corner...
5R4G, 5R4GY:

fil: 5.0V, 2.0A
max dc output current: 250 mA
max PIV: 2800 V
max RMS per plate: 750 VAC
max peak current per plate: 650 mA
drop: 67V @ 250 mA DC

5R4GYA:

fil: 5.0V, 2.0A
max dc output current: 250 mA
max PIV: 2800 V
max RMS per plate: 750 VAC
max peak current per plate: 650 mA
drop: 67V @ 250 mA DC

5R4GYB:

fil: 5.0V, 2.0A
max dc output current: 250 mA
max PIV: 3100 V
max RMS per plate: 900 VAC
max peak current per plate: 715 mA
drop: 63V @ 250 mA DC

It looks like the 5R4 is a higher-impedance rectifier with a lot higher PIV rating. the 'B' variant looks improved, with both lower impedance and higher PIV rating.

Dan Kerl
dlkerl@ingr.com

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Henry van Cleef <vancleef@bga.com>
Subject: Re: 5U4 vs. 5R4
Message-ID: <199509061827.NAA23265@zoom.bga.com>

As paul Veltman said

> Gang,
> In my Collins power supplies, there are two rectifier tubes, a 5U4 and a 5R4. They have the same pin-outs and as far as I can tell, are completely interchangable. Does anyone with more knowledge than me (about 99.9% of you) know what the difference in these two tubes are and why Collins designed their power supplies this way?

5U4 is a "double-size" 80, handles about 180% of the 80's current and a hundred or so more volts PIV. It has a 50% larger filament, so can handle fairly hefty peak currents into capacitor input filters. Suitable choice for 80/5Y3 applications requiring more current than a single 80 can provide (push-pull 6L6's in a receiver). Requires an adequate filament winding (3A vs. 2 for the 80/5Y3). This is the original tube of choice for high-power audio, using RC cap input filtering.

5R4 is a "high voltage" 80, with about double the PIV of an 80/5Y3, and ability to handle much higher average current, about the same as a 5U4. However, its peak current and dynamic plate resistance are about the same as an 80/5Y3, because it uses a 2A filament and larger electrode spacing than a 5U4. Generally chosen for applications where higher voltage and current than an 80 can provide are required. A 5R4 is a good choice when the filter following is a small non-electrolytic cap followed by a choke or choke input, almost mandatory when talking output voltages above 500 volts.

There is a fair amount of interchangeability between these tubes and the 5Y3, as all three sockets are wired the same. Assuming there is space for the T-16 (2 inch) bottle of a 5R4, it will go in a 5Y3 socket without change. The 5U4 does require extra filament current. However, the 5R4 is strong in PIV, and the 5U4 strong in maximum current during the cycle (for cap input filters).

Two other tubes that plug into the same socket worth mentioning:
The 5V4 is a rebased 83-V, originally developed to replace the 83 mercury rectifier. Handles 50% more current than a 5Y3 at much lower voltage drop, and can generally be used in a 5Y3 application to get 30 more volts. Heater-cathode design gives low voltage drop and slow warmup (minimum-no voltage surge on turn-on)

5AR4 (European GZ34) is a similar heater-cathode design scaled up to replace a 5U4 with lower voltage drop. Commonly used in '60's "hi fi" and guitar amplifiers to get 30 more volts.

I can't comment on why Collins would have put a 5U4 and a 5R4 in the same box. Power supplies tend to be an afterthought in circuit design, and also tend to reflect what's in the stockroom needing to be used up, available cheap, etc. Generally, a 5R4 was not "stockroom excessive inventory" and not inexpensive to buy, so was generally specified where the high PIV was needed.   Use of 80's into the fifties, to use up inventories, was quite common; also the use of two 80's or 5Y3's in parallel to get 5U4 currents---I have two boxes that do this.

Power supply design is one area to look at closely in an old box, particularly if you have to replace a power transformer. The postwar practice of using a capacitor input RC filter with the biggest cap that could be put on the chassis as input cap does not do wonders for hum reduction, but does raise maximum plate currents and transformer heating. It's always worth considering using a small cap as input cap and adding a nice choke behind it, which does wonders for ripple reduction. A choke input filter allows more current out of the rectifier (look at the derating charts in the tube manuals) and presents a nice even load to the power transformer. However, a choke input filter has a pretty hefty voltage drop----around 100 volts---from the transformer RMS to the output of the choke into the first filter cap, using any of the filament rectifiers.

--
****
Hank van Cleef vancleef@bga.com vancleef@tmn.com
****

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Mark Blair <Mark.Blair@tus.ssi1.COM>
Subject: Ballast tube replacement: here's how (was: Re: R-390A ballast tube)
Message-ID: <199509061656.JAA27086@tu212.tus.ssi1.com>

I'm not familiar with the R-390A or its ballast tubes, so I might be blowing hot air here, but my experience with my RT-70 and AM-65 might be helpful. The AM-65 has a ballast tube which sets the filament current in the RT-70 to about 600 mA. My unit seems to have the wrong tube in it; it passes about 800-900 mA, which overloads the filaments and kills tubes. Since I know how hard it can be to find the right ballast tube, I wimped out and built a solid-state replacement for it. The good news is that my replacement plugs in place of the original ballast tube, so it doesn't damage the radio set, and I can un-modify the set in about 30 seconds if and when I stumble across the right tube.

The replacement I built is basically just a voltage reference, a dual op-amp, a pass transistor and a few discretes, wired up as a constant-current source. I built it on a small piece of perf board, attached it to an octal tube base, and slid a piece of PVC pipe over the board. I cut away the pipe to allow air to flow over the heat sink and keep the heat sink from touching the pipe. The heat sink gets pretty hot (the transistor is dropping about 6.3 volts at 600 mA), but in my set it doesn't seem to harm the PVC tube. Somebody with better mechanical skills and tools than I have could probably come up with better packaging. It regulates the filament voltage very well. It regulates more tightly than the original ballst tube, but otherwise it is functionally the same as the original ballast tube (although it only can pass current in one direction, so it cares about the polarity of the voltage on its pins). Your milage may vary.

Maybe a similar unit could be built to keep an R-390A warm while you look for the right ballast tube at the right price. Let me know if you need more details about my ballast replacement. I could post a Postscript file of the schematic easily enough, or mail a copy of the schematic to anybody who sends me an SASE if necessary. The design should be fairly easily adaptable for other uses.

--
Mark J. Blair, KE6MYK   Silicon Systems, Inc.
Design Engineer   14351 Myford Rd. m/s C-90
mark.blair@tus.ssi1.com (714) 573-6709   Tustin, CA 92680-7022

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Mark Blair <Mark.Blair@tus.ssi1.COM>
Subject: Re: Ballast tube replacement: here's how (was: Re: R-390A ballast tube)
Message-ID: <199509062037.NAA28935@tu212.tus.ssi1.com>

> I'm not familiar with the R-390A or its ballast tubes, so I might be
> blowing hot air here

I guess I was blowing hot air. From another poster's message, it sounds like the R-390A uses AC in the filament supply, and my replacement only wants to see DC.

--
Mark J. Blair, KE6MYK   Silicon Systems, Inc.
Design Engineer   14351 Myford Rd. m/s C-90
mark.blair@tus.ssi1.com (714) 573-6709   Tustin, CA 92680-7022

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: rwilcox@newton.cacky.com

Subject: Re: Boatanchorite Boatanchor Computers (NO FLAK PLEASE)
Message-ID: <9509061244.AA16243@newton.cacky.com>

Bob

I have a few old CP/M machines is various stages of repair.

IMSAI S-100 (Front Panel lights and switches)
SOL Terminal Computer
DEC Rainbow

I have some of the manuals for these. I also have manuals for one of the Osborne Portables I don't remember which.

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                             (0|0)
/------------------------oOO--(_)--OOo--------------------------\
|  Gary Wilcox (KE4VUN)          E-MAIL: wilcoxr@mail.cacky.com  |
|  Commonwealth Aluminum                                         |
|  Hwy 1957                      FAX:    (502) 295-5700          |
|  Lewisport Ky.                 VOICE:  (502) 295-5461          |
\---------------------------ooo-ooo------------------------------/
```

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: swheaton@tyrell.net (Sheldon Wheaton)
Subject: Re: Books by Price
Message-ID: <199509060709.AA10543@tyrell.net>

Sheldon Wheaton/KC0CW:

>> An excellent source for information on WWII electronic warfare equipment
>> is the book "The History of U.S. Electronic Warfare" by Alfred Price.

Dick Dillman/WPE2VT:

>I've been looking for this book and another by Price called
>"Instruments of Darkness", also about WWII electronic warfare. And
>hints as to where I might find copies of these would be greatly
>appreciated.

Sheldon KC0CW:

Instrument of Darkness, by Alfred Price
first published 1967, "updated" 1n 1977 (284 pgs.) ISBN 0-932146-17-1

It was available from Peninsula Publishing in their 1991 catalog for $25.95
+ $2.00 S&H. Peninsula Publishing, PO Box 867, Los Altos, CA 94023 415-948-2511
fax: 415-948-5004

The History of US Electronic Warfare, Volume 1. by Alfred Price
1984, 312 pages. Numerous photos of equipment and people.
published by "The Association of Old Crows"
Around the same time as above (1991), the price was $26 including S$H.

Association of Old Crows
The AOC Building
1000 North Payne Street
Alexandria, VA 22314-1696
703-549-1600

Hope this is still current!

Regarding Alfred Price: He has served 18 years in the RAF, has 4000+ hrs flying time, worked from '61 to '74 in electronic warfare, and has 20+ books published.

73, Sheldon KC0CW
swheaton@tyrell.net

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: don merz <71333.144@compuserve.com>
Subject: CB, Mil, Misc FS
Message-ID: <950906164311_71333.144_DHQ77-1@CompuServe.COM>

Vintage Radio Gear For Sale

CONTACT: Don Merz, N3RHT: 47 Hazel Drive, Pittsburgh, PA 15228.
412-234-8819 (weekdays, EST or leave a message anytime).
71333.144@compuserve.com

Polytronics Lab Poly Comm Sr. 23 tube-type CB. With ring and message light features. Beautiful beige wrinkle panel with chocolate brown case and knobs. With matching stainless steel turner hand mic, AC cable and DC cable. It takes a critical eye to locate any part oif this unit that does not look brand new. Includes base-staion bracket and carry handle. Working. Excellent. $78

Polytronics Lab Poly Comm Sr. 23 tube-type CB. Same as above in just fair condition. As-is. Untested. $29

Browning Golden Eagle CB rig, S-23 and R-27. Excellent. Works but has hum in audio. $189

Fanon FCB-33A "Explorer" single channel CB walkie talkies. 2 walkie-talkies with vinyl slipcases, original box and paperwork. Like new in every respect except that the tip of one of the collapsible whip antenna is broken off. Really neat collectible. One works one doesn't. $38

Book: Practical Wireless Telegraphy, Elmer Bucher, 1921, SPARK!, HB: $29
T-18/ARC-5 transmitter. 2.1 - 3.0 mhz. All original. Excellent. $55

Military PE-120-B power supply for the BC-620 and BC-659 WWII jeep radios. Surface rust on case but all clips are intact and no damage--nothing that a wire brush and some olive drab spray couldn't cure. Leather handle broken. But it appears to be like new inside. $43
Military ID6/APN4 Indicator. Part of WWII-vintage LORAN set APN4--the first LORAN set ever produced. The rest of the set included the PE-206 inverter power supply and APN-4 receiver (which I don't have). This indicator is basically an oscilloscope with a nice front panel and the early-style UHF antenna connectors. This one is in very good shape but the black wrinkle on the case is flaking. No mods. Untested. BUT WAIT! THERE'S MORE! Also included: Another ID6/APN4 Indicator. Missing 3 knobs. One lever switch and one antenna connector have been removed. Nice front panel. No unoriginal holes. Parts set. Both ID6/APN4 indicators: $37.50
Military "ATR" 2-position receiver rack. The "ATR" packaging was the standard for military aircraft receivers by the end of WWII and through the Korean War era. So this rack fits receivers like the ARR-15, ARR-5 and ARR-7. The connecting cable box is included but the connectors are missing. The nomenclature tag has been removed. Lord shock-mount feet included. Nice shape. $35
Military CY-1218 Control Box. This is the transmitter/dual receiver operating control set from AN/GRC-38, the sucessor to the SCR-299, 399 and 499 trucks. So this was designed to control a BC-610I and two Hallicrafters SX-73 receivers. It allows for two local operating positions and one remote (via field telephone). This control box looks very similar to the JB-70 control box in the SCR-399. A pretty sexy add-on to your BC-610 setup--plug-n-play with any BC-610 between the BC-614 speech amp and any two receivers. Made by Hallicrafters. Excellent condition. With AN/GRC-38 partial manual copy. $119
T-23/ARC-5 VHF transmitter. Excellent 100% original condition. Needs cleaned. Untested. $35
R-28/ARC-5 VHF receiver. Excellent 100% original condition. Needs cleaned. Untested. $44
BC-454-B receiver covering 6 to 9.1mhz. Painted ugly black but should be aluminum. Dyno mount modified but restorable. No unoriginal front panel holes. $13
BC-453A "command set" receiver, 200 - 550khz, all original and very nice except it has solder on pins of the FT-230, dyno and rear connectors. $28

Western Radio Amateur magazine. One of many nice little-known ham publications from the '60's. I have 9 issues covering June 1961 through May, 1963. Surplus articles by Don Stoner, nice homebrew including an 807 based rig with a 17-position crystal switch for FT-243's and articles on Russ

Farnsworth and Herb Johnson (founder of Swan Engineering--it tuns out that "Swan" was his dad's name...). Very nostalgic. 9 issues: $15
CQ Mobile Handbook, William I. Orr, 1st edition, 4th printing, September 1962. Excellent softcover. $9
Antique Radio Classified magazine: I have over 60 issues dating back to Volume 2 to the present. I will trade these 2-for-1 for any of the AWA Old Timer's Bulletins I need as listed in the WANTED section above.
RCA "Triple Pindex" tube base directory covering 475 differnet types. Excellent: $8
Sams "Post-War Communications Receiver Manual CR-1" covering Collins 75A1, Hallicrafters S-38 through SX-43, National NC-240 through HRO 7, RME 45 and others along with aircraft and marine sets from Gonset, Airadio, Harvey Wells and others. Good condition. Paperback. $29
RCA Radio Service News. I have about 10 issues starting with Volume 1 number 1 (1934) and going through Volume 3 (1937). This is a newspaper format trade paper that runs about 12 pages per issue. Pictures of sexy vamps from radioland are usually featured on the front page and referred to as performing on one or other RCA-sponsored radio show. Nice amateur station photos (featuring the RCA ACR-136, etc), neat promotions for "spiderweb" antennas. Great tube intoductions (the 800 is featured in one issue). These are really fun reading. Trade or make an offer.
Antique Wireless Association Annual Review Volume 1. Mint. Out of print. Trade for AWA Review Volumes 2 or 5 or ????
1961 Radio Amateur DX Guide by H. J. Nelson. Published by Radio Amateur Call Book, Inc. Very good. $8
"Tuning in On A New World" brochure published by Condensite to promote their Celoran line of panel materials. It's an introductory kind of How-To brochure covering 1 to 5 tube set construction. With schematics. Good condition. About 1924. $6
ICS Radio Operators Handbook, 1924, 1st Edition. HB: $19
Sams Ham Antenna Construction Projects, 1963, 1st Edition: $4
73 Vertical, Beam and Triangle Antennas by Ed Noll, 1970: $5
CQ-DX Annual. 1948. 1st Edition, 1st Printing. $8
NRI coursebooks, 9 books from 1968 course, nice: $4
Bell System Technical Journal, Index to Volume 9, 1930: $2
1976 ARRL Handbook. Good: $12
1978 ARRL Handbook. Good: $9
ARRL Antenna Book, 7th edition, 1955. Very good softcover. $11

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Coherer, anyone?
Message-ID: <9509051930.AA01165@bock.ih.att.com>

Neat about coheres. I think one would still work on modern CW, since each tap of the bell-tapper would reset the filings for the continuous incoming wave.

How did the magnetic detector work, anyway? I recall reading that the radio signal demagnetized a previously magnetized steel wire, adn something downstream of the moving wire sampled the loss or retention of magnetism. Much like the AC Bias erase method of tape recording -- or of Poulsen's Telegraphone wire recorder,w hich was developed in 1899.

Magnetic detectors required an electric or clockwork spring motor to work. Supposedly one of the ships near the sinking Titanic failed to recive the distress calls cuz nobody wound up the detector.

As for code speeds -- what technology (spark, arc, tubes) was used by that German station on Long Island when it was sending out illegal messages at superhuman speeds? And how were the Germans back home recording those? Probably on a Telegrafone, a Danish invention. IN a roundabout way, this gadget was also responsible for the existence of Zenith Radio.
--73, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Steven Wilson <randyw@crl.com>
Subject: Re: Coherer, anyone?
Message-ID: <Pine.SUN.3.91.950906065534.141B-100000@crl8.crl.com>

Sorry fellows the Coherer is just like a crystal diode receiver it will not work on CW. You will get clicks.   Maybe someone could use it to receive true Morse and read the spaces.

Now it is possible to add a tone wheel - mechanical or electrical - to a crystal detector and receive CW.   I expect that would work on the Coherer also. They were called ticklers.

The Coherer acts as a variable resistance going from high to low. Then you thump it back to high again. There were also self restoring ones.

de stan ak0b

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: rdkeys@unity.ncsu.edu
Subject: Re: Coherer, anyone?
Message-ID: <199509061433.KAA12707@cc01du.unity.ncsu.edu>

```
>
> Now it is possible to add a tone wheel - mechanical or electrical -
> to a crystal detector and receive CW.   I expect that would work on
> the Coherer also.  They were called ticklers.
                                      --------   (:+}}.....
                                      tikkers.
```

One form of tikker was a so-called slipping contact detector using a metal wheel and a thin wire that, in essence, was a rotating diode junction. It used ``variable resistance'' in the contact between the wheel and a grounding brush and a sliding point contact wire to give a crude diode effect. My guess is that oxides on the wheel and the point gave a diode effect.

Another form of tikker was the so-called Poulsen's tikker or chopper which was a toothed make/break contact wheel that had what amounted to multiple switch breaks that broke up a wave train at an audio rate and produced a series of audio clicks in the headfones at a sufficient rate to render a tone.

The true tone wheel (AKA Goldschmidt's Tone Wheel) as used in the Tuckerton, NJ installation back about WWI, was an extremely high speed interruptor or chopper that broke the wave trains at a radio rate, and heterodyned the signal to direct audio, much as a standard modern (or so they think modern) direct conversion receiver. It had a make/break rate of 45,000 per second or thereabouts, the rotor running at 4000 rpm.

See Bucher's ``Practical Wireless Telegraphy'', 1917 edition, around page 277.

73/Bob/NA4G

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: wier@bobcat.etsu.edu (Bob Wier)
Subject: Early comms (was:secret lives)
Message-ID: <9509060116.AA00970@bobcat.etsu.edu>

|I was giving a talk to the local ham club on ancient wire line telegraphy.
|One of my props is a "learner's set", the wire line equivalent of a code
|practice oscillator, consisting of key and sounder built onto a common wooden
|base. Stamped on the moving arm of the sounder is, would you believe,
|E. F. Johnson, Waseca Minn.
|
|And I've got another sounder that was made by the Wm. Nye Co. of Bellingham,
|Wash.

Recently in the Silverton Standard Newspaper, a column from the August 31st, 1901 issue was reprinted, which was an obit for a person who *died* in 1901. I thought some BA fans might find it interesting, given the current dicussion of that period...

"When the description of the newly invented telephone reached this wilderness in 1877, he and John R. Curry constructed a line out of heavy twine, or cord, connecting the post office and the office of the latter's newspaper, and when the mail, whose arrival in those days was very uncertain, came in the newspaper office would be signalled by a series of taps with a pocket knife on a tin pan, through which the telephone line was drawn at either end. The was the first telphone in Colorado."

Silverton is a small (still) mountain maining community located in the remote SouthWestern corner of the Colorado Rockies at 9,000' elevation.

Note several ambiguities - there seems to be some confusion of telephone versus telegraph, and it's not clear whether this scheme was electrically powered or whether it was basically two tin cans tied together with string!

THANKS

-----   Round Up the Usual Disclaimers!   -----
Bob Wier, keeper of the Photo-3D, Icom radio (WB5KXH),
Overland Trails, and Motorola HC11 mailing lists
wier@bobcat.etsu.edu

"Kentucky women are possessed of strong stomachs. It is not
considered an insult to invite them to take a drink."
- Silverton Standard May 19th, 1901

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: WA6JYJ@ESHOP.UOREGON.EDU (Larry Laitinen WA6JYJ/AAR0ET)
Subject: Frank Jones, W6AJF
Message-ID: <950905211508.1f98@ESHOP.UOREGON.EDU>

>From the callsign server:

```
>> call w6ajf
Call-Sign: W6AJF                    Class: ADVANCED
Real Name: FRANK C JONES            Birthday: FEB 12, 1903
Mailing Address: 850 DONNER AVE, SONOMA, CA  95476
```

Valid From: JUL 3, 1989 To: JUL 3, 1999
>> bye
de WA6JYJ/7

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: TOM.A.ADAMS@mail.admin.wisc.edu
Subject: H&R Miniductor
Message-ID: <F96F5411.F96F5427@mail.admin.wisc.edu>

to: boatanchors@theporch.com

Re. the Miniductor stock shown in the H&R catalogue:

It looked to me like a closeout, so I went heavy on an order to them. While talking to the salesperson he assured me that B&W isn't closing out/going belly up; the reason for the large amounts of B&W stuff lately is that B&W is kinda clearing out some old stock, and H&R got to sell it because the two companies share the same building! It just works out more conveniently that way!

Mr. T.
(with enough B&W coil
stock to last into the
next decade!)

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Halicrafters question
Message-ID: <9509051749.AA00968@bock.ih.att.com>

My Bunis reference books are at home, but they do show about 3 Hallicrafters home radios. Nothing special about them, just All-Am 5ers.

Of course Hallicrafters made compact TVs postwar, easily recognized by the row of pushbuttons for channels 2-13 (and the early models had channel 1, which adds collector value to ANY TV. Lets you tune in the 6-meter TVI real FB).

What I didn't know till the Elgin RadioFest was that National also tried the TV business for a couple years. SOmeone won a prize with a small-screen National of late '40s business. Moore's book says both companies found TVs too competitive and got out. Probably didn't want to build stuff to a cheap price.

I think I even saw a Halli radio-phono console once, come to think of it.
73, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Norm Flasch <flasch@cushy.eecs.nwu.edu>
Subject: Re: Halicrafters question
Message-ID: <199509061330.IAA29760@cushy.eecs.nwu.edu>

>
> What I didn't know till the Elgin RadioFest was that National also tried the TV business for a couple years. SOmeone won a prize with a small-screen National of late '40s business. Moore's book says both companies found TVs too competitive and got out. Probably didn't want to build stuff to a cheap price.
>
> I think I even saw a Halli radio-phono console once, come to think of it.
> 73, mike k w9nrd

We were recently at the Museum of Broadcast Communications in Chicago. They have an excellent example of a National 7" TV. This is a real classic. It is sitting next to a Zenith shutter dial tombstone. They also have a blonde Halicrafters TV console. The grille cloth covers the whole front of this set. Judy even thought that it was kind of cute. She also said that my collection is more interesting than theirs overall and that I should consider making donations. Anything to make more room in the house!

Another set that was quite noteworthy is the Dumont mamouth console hmoe entertainment center that they currently have on display. This is by far the largest console I have ever seen. It has a fold out TV. You lift the cover and the 21" TV folds out on a piano hinge. There is a record changer and a very neat looking TV/AM/FM/multi-band SW tuner. This is a four-guys-to-move-it type of thing. It makes my '50 Zenith porthole TV/AM/FM/phono look like a puppy!

--
Norm Flasch flasch@eecs.nwu.edu Northwestern University
Electrical Engineering and Computer Science

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Grant H Youngman <us007699@interramp.com>
Subject: RE: HO-13 panadapter update
Message-ID: <Chameleon.950905205518.us007699@gyoungma.interramp.com>

On Tue, 5 Sep 1995 19:04:13 -0500 (CDT) Jim Lockwood wrote:
>Gang,
>
>Last week I was absorbed in the project of QSYing the input frequency of my HO-13 panadapter to work with the receivers here that have IFs in the

>1600-1700KC ballpark.   As a data point for others who may someday want to
>do something similar, I thought I'd post the results of that project.
>
>The bottom line is that the panadapter is now working happily with my Mohawk
>and I'm learning all kinds of things about the amateur spectrum that I never
>dreamed I wanted to know.   What the heck, though, watching the HO-13 is
>cheaper than subscribing to cable TV....

It IS truly amazing and eye opening (so to speak) to use a panadapter. Gives you a whole new perspective on the ham bands. I have yet to acquire a BA version of same, but (sorry for the ref to silicon) have one on my ricebox, and can't imagine surfing 20 meters without it. I'm surprised these weren't more common in the Golden Age, and equally surprised its not a standard item in a silicon station as well.

I'd love to find one for one of my BA receivers ... Or maybe try and build one out of toobs during the long winter's night. Seems to me there were some designs in the old Handbooks (??).

Grant/NQ5T

Grant H Youngman/NQ5T
us007699@interramp.com

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: KS0F@aol.com
Subject: HP606A
Message-ID: <950906154821_92677407@mail04.mail.aol.com>

Greetings All,

I use an IFR service monitor as my main piece of gear on the bench here. For some time I have wanted and been looking for one of the old HP generators but never found a nice one.

I bit the bullet about a week ago and called an outfit down in Texas who refurbs and sells this stuff. They had one left at a high price so I bought it.

It came in today. You can tell it's not new if you look real hard. It works like a dream and I'm glad I spent the money.

A truely classic 35 year old BA that I am very proud to own. It will be back in service now too, as the up to 3 volt RMS out will come in handy once in a while.

Yes, I now have the BA test gear bug. Only fitting though, don't you think?

73 de KS0F   Mike

ZUT

.

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Grant H Youngman <us007699@interramp.com>
Subject: HQ-180 Ist RF Tube Substitution
Message-ID: <Chameleon.950905224830.us007699@gyoungma.interramp.com>

In response to my related posting on the SP-600, someone (sorry, I lost the message) asked if the same tube substitutions would work in the HQ-180 as were recommended by Bill Kleronimous for the SP-600 1st RF stage.

The HQ-180"A" DOES use a 6BZ6 in the first RF. Maybe early HQ-180s were designed to use the 6BA6 (don't have one, but my 180-series schematics show a 6BZ6 in the RF amp for all versions of the HQ-180 ???). I do know, that the HQ-160 uses the 6BA6 in the RF stage.

Direct substitution of the 6BZ6 for the 6BA6 works in the SP-600 because both the cathode and #3 grid (supressor) are directly grounded. In the HQ-180/180A this is not the case. So DIRECT SUBSTITUTION WON'T WORK.

The difference in basing of the 6BA6 and 6BZ6 is such that pins 2 and 7 are reversed, ie, in the 6BA6 pin 7 is the cathode, while in the 6BZ6 pin 7 is the #3 grid. Probably, the voltages, etc. are ok. But to make this substitution in the HQ-180, or any radio that does not have both of these pins grounded, you would have to rewire the RF amp tube socket, swapping everything on pins 2 and 7.

Regards ... Grant/NQ5T

Grant H Youngman/NQ5T
us007699@interramp.com

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Doug Jackson <dougj@hpdmmef.boi.hp.com>
Subject: I need schematics for
Message-ID: <9509061349.AA21948@hpdmmef.boi.hp.com>

Hi, I need help in obtaining schematics and other service data on the following:

Eico FM/IF sweep generator model 360
Heathkit SW receiver model GR-64
Guild Country Belle 556

Any help is appreciated!

Thanks,
Doug Jackson
--
Doug Jackson (Hewlett-Packard DMD Development)

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: Info wanted: U.S. Navy key, 1960s
Message-ID: <9509061454.AA24325@syseng1.se.melpar.esys.com>

I'm looking for info on the standard straight key installed aboard new construction/conversion Navy ships in the 1964-65 timeframe. Can anyone ID the key for me and, more important, tell me where/how I might obtain one in good condition?

I served aboard USS BELMONT (AGTR-4) from 1964-68; the ship was commissioned in 1964, having been converted from the SS IRAN VICTORY (AG-167). I'd like to obtain a telegraph key of the type installed during that period.

73,

Paul, K4MSG (ETCM, RET)

```
(|_|)  Paul H. Bock, Jr. K4MSG     Internet: pbock@melpar.esys.com
 | |)  Principal Systems Engineer  Telephone: (703) 560-5000 x2062

   "You can have my bug when you can pry my cold, dead fingers from
    around it....." - anonymous radiotelegraph operator
```

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Michael.J.Knudsen@att.com
Subject: Meissner Analyst
Message-ID: <9509062025.AA01861@bock.ih.att.com>

Anyone ever work/play with one of these? It's a 1940s vintage complete radio service shop in one tall, narrow box. Like the current K-Mart $99

stereo "rack" systems, it looks like several small units stacked vertically,
but they're really all in one big box. Includes a VOM, signal generator,
signal tracer, and an AC ammeter (maybe wattmeter?) to measure current
draw of the radio under test.

I got this goodie in fairly clean shape at the Elgin RadioFest for about $30.
Haven't opened it up yet, and won't pl;ug it in till I do, (and finish wiring up my
variac). And of course I don't have a manual. BUt I do have some Meissner
catalog flyers with a full-page ad for the beast. And since I have a soft spot for
Meissner gear, it naturally rubbed against my legs till I took it home.

Almost every section has a magic eye to indicate something or other.
I figured the eye tubes were worth the price if the thing was full of mouse dirt.

Not real fancy -- the two generator/tracer pointers aren't even vernier driven
from their knobs. But it sure is heavy enuf to have a good power xformer.
Ya don't suppose it includes an ISOLATION xformer, do you?
Have to take out those dozen screws and look.

Anyone willing to zerox the manual? Tnx, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: post@ouvaxa.cats.ohiou.edu
Subject: Re:Meissner Analyst
Message-ID: <0099600E.9E4BB260.4868@ouvaxa.cats.ohiou.edu>

Ohio University Electronic Communication

Date: 06-Sep-1995 06:24pm EST

To: Remote Addressee   (_MX%"boatanchors@theporch.com")

From: Richard Post   Dept: Instructional Media Services
POST   Tel No:

Subject: Re:Meissner Analyst

>Anyone ever work/play with one of these? It's a 1940s vintage complete
>radio service shop in one tall, narrow box. Like the current K-Mart $99
>stereo "rack" systems, it looks like several small units stacked
>vertically, but they're really all in one big box. Includes a VOM, signal

>generator, signal tracer, and an AC ammeter (maybe wattmeter?) to measure
>current draw of the radio under test.

This is a neat old device that looks like Christmas with its bright red pointer knobs and those four green eye tubes lit up! If you hook the audio amp (signal tracer) to the tuned radio frequency stages (that's not a sig generator), connect a speaker/ output transformer and a length of wire for an antenna, this thing becomes a decent little LW and broadcast TRF receiver all by itself. The docs for use are in both of my Meissner circuit books. I had to replace the capacitor connecting to the headphone jack output of the audio signal tracer section. Yours is probably leaky also and will bite you with the resulting DC on the phone plug. That section has enough drive to use a speaker if a matching output transformer is used. (Try one from your parts All-Am 5 radio.) That "VOM" is a primitive VTVM. I replaced several resistors to bring it back to balance.

RCA sold a similar unit with horizontal mounting known as the Rider Chanalyst.
The Meissner was sold before the war as well as after. I believe the post-war model has an "A" after the model number. Mine is prewar.

Good luck es 73,

Rich

Received: 06-Sep-1995 06:25pm

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Henry van Cleef <vancleef@bga.com>
Subject: Meissner EX signal shifter
Message-ID: <199509060524.AAA03427@zoom.bga.com>

Along with the 1942 Signal Shifter, which is now up and running, came a couple of EX Signal Shifter parts units. Rich Post was kind enough to send me a manual for the postwar Signal Shifter, but the one that I am refurbishing (the other is strictly parts) didn't agree with the schematic rather substantially. It's obvious I have a somewhat different unit than the schematic shows, but I don't know which mods were Meissner, and which were QST ECO's. Worth noting that one unit was "butchered," and the other was "badly butchered," so I don't have a clear reference to look at. Most of the questions are readily solved by a little EE stuff, but there are a few remaining, which I'll pose here, in case someone has a schematic closer to the box I'm working on.

1. VR tubes. The schematic shows a single 0D3, used to supply the 6V6 oscillator screen. My box has both an 0D3 and another VR tube, either 0A3 or 0C3 (one of each in the two units I have). Which tube is correct? The circuit is logically wired, 2K 10W from B+ to the lower voltage tube, 6V6 plate fed through an RF choke from there, cathode of the top tube goes to anode of the 0D3, which goes to ground. There was a 33K resistor across the top (lower voltage) VR tube to balance out 6V6 screen current, which comes from the anode of the 0D3 as per the schematic. What is the upper tube, and are the feed resistance (2K 10W) and the shunt resistance (33K----had 1/2 watt installed) correct?

2. Keying circuits: The schematic shows the oscillator cathode and buffer amp cathode resistors going to the tip connections of the two keying jacks, with 0.25 mfd and 330 ohms across the two tips as a chirp suppressor. My unit has a pair of iron core chokes, one from each cathode resistor, and there are separate caps on the jacks. This looks original, so I assume it is correct.

3. 6V6 oscillator circuit: The schematic shows a 15K grid leak, grid to ground, on the 6V6, on the XTAL/ECO side of the 27 ohm parasitic suppressor. The unit is actually wired with a 150K resistor from the XTAL/ECO switch, in series with an RF choke, returned to the end of the 270 ohm cathode resistor that goes to the keying circuit. What is the correct arrangement here? I can't believe a 150K (yes I checked it on an ohmmeter to make sure I wasn't misreading---it's actually over 200K) used as an oscillator grid leak with a 6V6. What is the correct configuration of the grid circuit? Is the 150K correct? Is it supposed to be in the keying circuit?

Also, the schematic shows the standby relay having a 27 ohm resistor in the oscillator killer circuit (relay de-energized, the two ends of the oscillator coil are connected). My unit was wired with no resistor here---a direct connection across the coil (same as the '42 unit).

4. Oscillator plate tank circuit: The schematic shows the trimmer connected to the XTAL/ECO switch. In ECO, the trimmer is grounded directly. In XTAL, the trimmer is padded with a 430 pf. cap. Inasmuch as the switch has the contacts, and the 430 pf., but the trimmer was grounded directly, I assume that this is correct, and the wiring I rang out was a QST ECO. However, this is a mighty long ground path, and probably causes unwanted music as originally set up.

The oscillator plate is coupled through 220 pf. to the 807 grid through a parallel 22K/47 pf. RC, to the tuning eye grid/807 grid leak (180K in series with 36K), and then through a choke-on-a-resistor. My unit actually had 15K installed where the schematic shows 22K. Also, the schematic specifies a 6U5, while both of my units have 6E5's installed.

I think that covers the discrepancies I haven't figured out. I have both the oscillator/buffer and the power supply chassis completly disassembled. By that I mean totally bare, nothing on them. Polished them up so they look pretty. I labelled the tube sockets on the power supply chassis, and am about to do the same on the oscillator/buffer chassis when I find out which tube the second VR tube should be. The two chassis are being shot with clear matte lacquer, to keep them in some kind of condition. Nothing like press-type (get it from an art supply place or a drafting supply place) to put labels on chassis. This box will build up with all new caps and resistors----almost every resistor on the thing was double value. Any good postage stamp micas will go in the spares bin for restorations. I need to lay out a little better B+ distribution scheme---the original was a rat's nest of wires and terminal strips.

By the way, is there somewhere I can get a decent ceramic plate cap connector for an 807 ("small" cap)? The original plastic jobbie is pretty Mickey Mouse, even if B+ isn't up where you'd normally expect it to be on an 807.

I've had my adventures with those EF Johnson air variables (main tuning). One had a broken screw on the stator-to-porcelain, and it was a real bit of microsurgery to get another screw in there and maintain the dimensions. Also, I've got a flex coupling setscrew with a broken head (slotted screw, half of it broken off). I wonder if I can drill these. Easiest way to get the caps clean is to take them apart and clean all the pieces.

Also, the plastic EBY socket for the 6E5, which is glued together, has a 1 meg resistor inside that has packed up. I got one of them apart, so I can replace the thing.

I don't mind well-engineered and neatly-installed mods. But this thing was a real haywire special. It's been partly recapped, and partly re-resistored, and it's obvious some other changes took place. The ugly thing is the soldering to the chassis at various points and the second-rate sheet metal work on the back aprons. I've got it cleaned up so that grommets and flat washers will hide the worst of it. I knew when I got these boxes that they were "rough," and that to get one I'd have to rebuild it from the ground up, using the best of the two, plus a lot of new components. Considering that you can do a lot neater job doing it this way----it's a lot of work, to make an instant Heathkit out of something, clean up old coils and variable caps, and then build it up again---but the results do pay off.

--

****
Hank van Cleef vancleef@bga.com vancleef@tmn.com
****

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: Microtubes
Message-ID: <9509051859.AA01111@bock.ih.att.com>

I remember reading about TIMMs in Popular Science or some such place. THe idea was to heat the entire ceramic "integrated circuit" red hot. Only the cathode-coated areas would emit electrons, and the other metal parts would be grids and plates. Caps and resistors were also molded into the "chip", and made to stand the heat.

TIMMs were p[roposed for usage where there was lots of waste heat available, like on exhaust manifolds, rocket nozzles, and especially in nuclear reactors, where solly-state devices have rpoblems with the radiations particles.

Also proposed for outer space, where vacuum is free, with heat from solar mirrors or nuclear-waste heat sources.

Really a great idea. WOnder how many tubes per cubic millimtere the technology might have readched by now? 73, mike k w9nrd

---

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: jproc@worldlinx.com
Subject: Military Audio Accessories
Message-ID: <Chameleon.4.01.2.950905231507.jproc@jproc>

Dear BA's,

I have posted a piece of reference material to the archives. The file is called Military.Audio.Acc and describes the most common speakers, headphones, microphones and handsets produced during World War 2 and a while afterwards.

Regards,

Jerry Proc VE3FAB
E-mail: jproc@worldlinx.com
Radio Restoration Volunteer
HMCS Haida, Toronto Ontario

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Joe Spencer <jspencer@metronet.com>
Subject: Re: Military Audio Accessories
Message-ID: <Pine.HPP.3.90.950906090328.29779A-100000@fohnix.metronet.com>

Speaking of Military Audio Accessories,

I have obtained a couple of Military telephone handsets.

They are TA-1/PT.

The id plate says:
YANKEE TELECOM LABS INC
MERIDEN CONN.
ORDER NO. 24274-PC-64
U.S.

They are in great condition with cases.

Anyone familiar with these?

73 Joe KK5NA

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
Subject: Re: Miniductor

Herbach & Rademan phone is 215-788-5583 mon-fri 8 am till 5 pm est. There address is H & R, 18 Canal St, Bristol, Pa. 19007-0122. They do have some nice stuff in the catalog.Those air wound start with 1/2" diameter to 3" .

Hope this helps,

Charlie N9SOR

----- End Included Message -----

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: wendler@tomcat.adc.ray.com (John Wendler)
Subject: Re: Miniductor Source
Message-ID: <9509061417.AA09136@tomcat.adc.ray.com>

Charlie sent me this info on Herbach and Rademan, so I thought

I'd forward it on to the list. H&R also has a large selection of motors, pumps, fans, compressors, etc, as well as lasers and the like. No conventional firebottles, however.
Check 'em out!
John

----- Begin Included Message -----

>From SP600@aol.com Tue Sep 5 18:46:46 1995
From: SP600@aol.com
From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Randy Cole <rcole@osage.csc.ti.com>
Subject: Re: More Vibroplex Blue Racer Trivia
Message-ID: <199509061419.JAA10024@osage.csc.ti.com>

Neal McEwen (K5RW) replied to my Blue Racer trivia post but forgot to copy the BA list. Here's his reply:

Here is more info for the Vibroplex Blue Racer trivia file:
I have a Vibroplex bug that has Blue Racer parts, including the colverleaf part, all setting on an Original size base. Yes, it is a factory job.
It is black jappanned base and the serial number is 82,017. I've had this bug for about ten years and I've never seen another one like it. Has anyone else seen this variation?

And to add to the earlier discussion, I've seen odd things happen to the labels of the blue racer / #4 modes. wrong postion, chopped off, etc.

73 de Neal K5RW
Dallas, TX

I'll add a bit to it. Yes, the Blue Racer was available in a wide-base version up into the 1920s. Dave Ingram refers to it as a "Special Order" Blue Racer. I've got one like it but don't have the serial number handy. I believe mine has the cloverleaf frame too.

Vibroplex also put Blue Racer parts on a 3-inch base, the same width as the Martin Junior. I've got one of those with a nickel base, and Tom Perera has one with a black Japanned base. The serial numbers are only two or three apart so they must have been a factory job.
I certainly don't know the story behind those. I believe the serial numbers are in the 86,xxx range. Those have the cloverleaf frame.

73,
Randy Cole
KN6W

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: David Stinson AB5S/7 <72227.1640@compuserve.com>
Subject: Nebraska Surplus to the rescue!
Message-ID: <950906041131_72227.1640_EHM163-1@CompuServe.COM>

Michael.J.Knudsen@att.com wrote:

>Collins went to plain old
>consumer knobs in their later ham gear like the 32S and KWM series.
>These....depend on those little insert tabs of spring steel....
>I tried pulling tabs out of other random knobs in my junk box,
>but the Collins knobs demand more "hump" or bow in the spring tab.

Mike:
You can get these rare Collins parts from Nebraska Surplus Sales.
They are only $187.96 each in single lots, but they will give
you a 12-cent discount if you buy five or more.

Ever the NSS fan,
Dave Stinson AB5S/7

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Scott_Johnson-AZAX60@email.sps.mot.com
Subject: RE>Oil filled, high voltage
Message-ID: <"Macintosh */PRMD=MOT/ADMD=MOT/C=US/"@MHS>

RE>Oil filled, high voltage caps 9/6/95

They are not polarity sensitive, however "outside foil" is sometimes marked on a terminal to denote the best side to connect to for ground side. My rule for motor caps is 2.8 X the AC value, but I actually don't usually go above about 2.5 in practice. Keep in mind that the AC value is the RMS value, so the peak to peak value is 2.8.

73, Scott

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com

Subject: Re: R-390A ballast tube
Message-ID: <9509051946.AA01216@bock.ih.att.com>

I think the simplest mod to get rid of the ballast tube is to replace
the 6-volt heater tubes in botht he PTO and the VFO with their 12-VAC equivalents
(12BA6 in both, I think). Then jumper out two pins on the ballast tube.

Another method I would not recommend for a "collectable" BA -- do what someone
did to my 2nd R390A, and put FETs in both oscillators! I about tossed when I saw
this,
but if anything this RX is more stable and sensitive than my "stock" R390A.
Of course this mod included 3-legged regulators (+12 or +15V) for the supply to
these sandy intruders. 73, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Stanley L Flegler <flegler@pilot.msu.edu>
Subject: Re: R-390A ballast tube
Message-ID: <199509061219.IAA29813@pilot04.cl.msu.edu>

The ballast tube is a 3TF7. 73 Stan K8RPA, flegler@pilot.msu.edu

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: shaun.merrigan@freddy.com (SHAUN MERRIGAN)
Subject: Re: R-390A ballast tube
Message-ID: <8B0851C.0004021FFB.uuout@freddy.com>

On 09/05/95, DANIEL WRIGHT spoke about Re: R-390A ballast tube; I say:

DW>What is the tube number for the R-390A ballast tube??

DW>de Dan--WA0JRD ..

That would be the famous (or infamous) 3TF7; it is designated RT510 on
the IF DECK.

Shaun

Shaun P. Merrigan
merrigan@nyquist.ee.ualberta.ca
shaun.merrigan@freddy.com
3rd Year EE University of Alberta

¸ CMPQwk 1.42 856 ¸Cats are not pets, they own the house and let you live there

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Jack Taylor <n7oo@hereford.ampr.org>
Subject: Re: R-390A ballast tube
Message-ID: <199509061722.MAA02127@uro.theporch.com>

At 03:19 AM 9/6/95 -0500, Michael.J.Knudsen@att.com wrote:
>I think the simplest mod to get rid of the ballast tube is to replace
>the 6-volt heater tubes in botht he PTO and the VFO with their 12-VAC
equivalents
>(12BA6 in both, I think). Then jumper out two pins on the ballast tube.
>
  73, mike k w9nrd

In looking at the schematic, the ballast tube is in series with the 25 vac
filament feed that goes to V505 and V701, to ground. The ballast tube is an
Amperite 3TF7.

I picked up some 3T7's last year at the local swapmeet for a buck each.
Does anyone have data on the 3T7 and the 3TF7's?

73 de Jack

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: R390A Main power switch
Message-ID: <9509051546.AA00795@bock.ih.att.com>

Well, the sticky power switch in my 2nd R390A did seem to quit sticking ON
after I'd cycled it a few dozen times, actually using the rx. It probably
is just dirt. THis set is pretty dusty/dirty behind the front panel,
probably from years of spray-lubing the gearing.

In contrast, the R392 I just got is still clean and shiny with some original lube
in the gearing area. That hermetically sealed cabinet does keep things squeaky
clean.
73, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: gc@fox.cen.com (Gary Chatters)
Subject: Re: RE>Oil filled, high voltage
Message-ID: <9509062205.AA12292@cen.com>

>They are not polarity sensitive, however "outside foil" is sometimes marked on a
>terminal to denote the best side to connect to for ground side. My rule for
>motor caps is 2.8 X the AC value, but I actually don't usually go above about
>2.5 in practice. Keep in mind that the AC value is the RMS value, so the peak to
>peak value is 2.8.
>

This doesn't sound like a good idea.

For a given RMS AC voltage across the plates of the capacitor, the peak voltage between the two plates will be 1.414 x RMS AC volts. (Not 2.8 x). If the AC voltage rating is any indication of the plate-to-plate breakdown voltage, 2.5 x the RMS rating sounds like it is past the safe point.

gc

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Michael.J.Knudsen@att.com
Subject: Re: RE>Oil filled, high voltage
Message-ID: <9509061640.AA01610@bock.ih.att.com>

Hmmm... the peak-to-peak value of AC is indeed 2.8 times the RMS, but the PEAK voltage, meaning to ONE side of 0, is half of that or 1.4x. Sooo, if you take an AC cap and run it at more VDC than 1.4x its RMS rating, you could be asking for a stinky blue cloud of PCBs in yer shack.

Of course, given the spikes and glitches that infest the AC line, especially in industrial setups, these caps will probably take a LOT more tahn advertised.
73, mike k w9nrd

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Michael.J.Knudsen@att.com
Subject: Resurrecting a KWM-2
Message-ID: <9509052153.AA01361@bock.ih.att.com>

This Saturday, over Labor Day weekend, I picked up a Collins KWM-2 xcvr. I'd been looking for a decent HF SSB rig to get back on the air after way too long a lapse -- sniffing around HT-32s and the like, wondering what I'd use for an antenna relay with my BA rcvrs.

So, trying to buy small, buy quality, and buy already working, I went for this radio. The selller had moved out of state so we met at another ham's QRH, who had some deals going with the seller.

The KWM-2 sure looked nice in that bright weekend sunshine. We took it inside and fired up on a dummy load. Everything worked great, except after 30 seconds the final PA compartment added an unmodulated carrier on the Native American CW Lightwave band. We didn't have a wet blanket to key it with, but that wisp of Bakelite-flavored smoke was coming out nice and steady.

"Just dust, or cold solder joint" they assured me, so I paid and took the rig home with its shiny Magic C-Word emblem.

No dummy load at home, so hooked it straight to my Alpha-Delta Sloper 65-ft end-fed. Tuned her up on 75, was only able to load up about 50W PEP, but sure enuf that wispy smoke stream came up again. Took the lid off the PA compartment (after disconnecting the truly BA power supply), kept searching and sniffing, but took forever to find the component with the bad habit -- a little PA neutralizing trimmer cap. It's the el cheapo plain fibre variety, and some time previously the rig had been run with conductive dust on that fibre, a carbonization process got started, and it was just getting worse. The rig was so clean when I saw it that I didn't think to look for carbon arcovers.

Moral A: Don't fire up old dirty, damp gear until you REALLY clean it up inside!

Moral B: Don't assume that "Collins" on the outside means no vulnerable parts inside. BTW, the bandswitch in the PA pi-network that changes coil taps uses plain fibre wafers, not ceramic wafers like my DX-40 that ran half the power at 1/20th the price. You want real Collins quality, buy military surplus.

Moral C: Why are you reading moral advice from someone who went ahead and paid money for a piece of equipment that smoked when demonstrated to him? :-)

Well, by lucky fates the same ham had sold me an R390A a couple years back with a spare IF module, pretty well stripped. But I found a close match for the trimmer cap, perfect fit, and after some tight fingerwork got it into the Collins.

Loaded up fine, especially on 20 mtrs. Couldn't get out, since the D104 mike I'd picked up cheap at Elgin ARCI RadioFest wasn't working. But no smells beyond nice warm metal.

Labor Day itself, I fixed the mike, and by night was calling "Hello, test" on 20 and a 6-er came back to assure me that I sounded great in Cal! Worked another 6 and then had a nice chat with a couple of locals before going to bed happy.

So at last I'm back on HF with a famous-make firebottle xcvr. There are a couple quirks to fix yet (like a noisy relay contact in rx mode), and I need to find an antenna tuner to load up better on 80 and 40 (or put up a real dipole), but it looks like I'm back on the bands to stay. OK, so it isn't AM, but wait till next year...

I'd appreciate any hints about adjusting and maintaining this classic. Not much grid drive on 10 meters, and signals at 6-6.5 MC feed thru to the rx IF on 10, but it looks like I have a working station here now. Tnx fer listening, mike k W9NRD

PS: The seller threw in two brand new relays, a mike adapter, and a zerox manual, so not a bad deal.

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Stanley L Flegler <flegler@pilot.msu.edu>
Subject: RG-214/Surplus Sales Question
Message-ID: <199509061228.IAA59680@pilot03.cl.msu.edu>

Has anyone had experience with RG-214? I was planning to use RG-8 for an 80 foot run to a new antenna. I am now considering buying RG-214 because of its double shield and lower loss. The coax will pass directly by the kid's computer so I want to minimize hash pickup and I want to keep as much RF as possible away from the house. Is it a lot stiffer than RG-8? Surplus Sales of Nebraska has new 100 foot lengths with N connectors at each end for $79. Has anyone had experience buying coax from them? 73 Stan K8RPA,
flegler@pilot.msu.edu

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: hawley@aries.scs.uiuc.edu (Chuck Hawley)
Subject: Re: RG-214/Surplus Sales Question
Message-ID: <199509061322.IAA21346@aries.scs.uiuc.edu>

>
> Has anyone had experience with RG-214? I was planning to use RG-8 for an 80 foot run to a new antenna. I am now considering buying RG-214 because of its double shield and lower loss. The coax will pass directly by the kid's computer so I want to minimize hash pickup and I want to keep as much RF as possible away from the house. Is it a lot stiffer than RG-8? Surplus Sales of Nebraska has new 100 foot lengths with N connectors at each end for $79. Has anyone had experience buying coax from them? 73 Stan K8RPA,
> flegler@pilot.msu.edu
>

I'm using some that I got from Fair Radio (45 ft, N conn, for $23). It's about the same as RG8 as far as handling. I use it to go to a butternut vert and have it buried about an inch under the grass. Been fine for a year so far.

Charles Jack Hawley Jr.
Amateur Radio KE9UW (A.K.A. 'Chuck' in Ham Radio)
BMW K100RS BMWMOA #224 (A.K.A. 'Jack' in Motorcycles)
hawley@aries.scs.uiuc.edu
Sr. Research Engineer Emeritus
Univ of Ill, Urbana-Champaign

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: Scott Townley <nx7u@primenet.com>
Subject: Re: RG-214/Surplus Sales Question
Message-ID: <199509061431.HAA08621@mailhost.primenet.com>

At 08:24 06.09.1995 -0500, Chuck Hawley wrote:
>>
>> Has anyone had experience with RG-214? I was planning to use RG-8 for an 80
>> foot run to a new antenna. I am now considering buying RG-214 because of its
>> double shield and lower loss. The coax will pass directly by the kid's
>> computer so I want to minimize hash pickup and I want to keep as much RF as
>> possible away from the house. Is it a lot stiffer than RG-8? Surplus
Sales of
>> Nebraska has new 100 foot lengths with N connectors at each end for $79. Has
>> anyone had experience buying coax from them? 73 Stan K8RPA,
>> flegler@pilot.msu.edu
>>
>
>I'm using some that I got from Fair Radio (45 ft, N conn, for $23). It's about
>the same as RG8 as far as handling. I use it to go to a butternut vert and have
>it buried about an inch under the grass. Been fine for a year s

One of the main differences between RG-8 and RG-214 (besides the shielding, of course) is the quality of the vinyl jacketing.
RG-8 typically uses plain ol' PVC, whereas RG-214 uses an improved version (can't recall the exact name of it off the top of my head and my cable catalogs are boxed away now).
Basically, it means that the weather resistance of RG-214 is markedly superior to RG-8.
On a related note, what's RG-8/A?? It's just RG-8 with the improved jacket that's on RG-214!

However, the use of RG numbers basically only tells you the physical parameters of the line. By that I mean, there is a great variation in quality between different manufacturers' cables, all of which may be marked RG-8. The largest potential difference is in the shielding performance; there is not a "standard" shield coverage that must be maintained to be called RG-8. For high-noise/interference situations (like the one mentioned above), a "bargain" RG-8 cable may be no bargain at all if it's shield coverage is 70% (and I've seen it this low!). One way (on cables of more modern manufacture) to have a sort of guarantee regarding quality is to look for an associated MIL-SPEC part number on the cable that begins with M17/...cables made to this standard are frequently still marked/advertised using RG-numbers, but do have specific minimum standards with respect to impedance variation, shield coverage/shielding effectiveness, etc.

I cannot comment on the specific merits of cables offered by any of the "surplus" sources--they may be great. But as always:
Caveat Emptor!
Scott Townley
nx7u@primenet.com

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: wa6jpr@engsrv.qsc.com (Wally Linstruth - WA6JPR)
Subject: Re: RG-214/Surplus Sales Question
Message-ID: <9509061542.AA16148@engsrv.qsc.com>

>
> Has anyone had experience with RG-214?
> Surplus Sales of
> Nebraska has new 100 foot lengths with N connectors at each end for $79. Has
> anyone had experience buying coax from them? 73 Stan K8RPA,
> flegler@pilot.msu.edu
>

I bought some of this coax fron Nebraska a while ago. Mine came in new condition. I did a little price checking and it also looks like a best buy - can you believe it from Nebraska??!!

Going from memory now - the coax has a double shield, and is silver plated on the center conductor and (I think) the shield also. We used it a lot at the space vehicle integration area at TRW (in a former life) and I have used it with good luck on hf and some vhf uses.

Wally - WA6JPR@QSC.COM

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995

From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>
Subject: Short Admin announcement
Message-ID: <9509060732.aa29617@jackatak.theporch.com>

Just so ya'll will know....

theporch will be down for a "while" Friday Afternoon, 8 Sept, while
Phil changes out an EPROM in the TA unit that connects the ISDN to the
InterNet... He expects to have things back to normal in a short time,
and our upstream provider is aware of the scheduled outage, so there
should be NO outages with the list... just a short delay in delivery ;^)
--
73
Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)
- - - BoatAnchor Mailing List Archiver/Owner - - -
firebotl@jackatak.theporch.com   ----   listown@jackatak.theporch.com

---

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: johnmb <johnmb@nando.net>
Subject: Re: The secret lives of some of our friends
Message-ID: <Pine.SUN.3.91.950905220140.22608C-100000@parsifal.nando.net>

On Tue, 5 Sep 1995, Jim Haynes wrote:

> I was giving a talk to the local ham club on ancient wire line telegraphy.
> One of my props is a "learner's set", the wire line equivalent of a code
> practice oscillator, consisting of key and sounder built onto a common wooden
> base. Stamped on the moving arm of the sounder is, would you believe,
> E. F. Johnson, Waseca Minn.
>

These were carried in the EFJ catalogs for quite some time.
(late 50's?). Wonder why?
/john wb5oau/4

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Neal McEwen <nmcewen@metronet.com>
Subject: Re: The secret lives of some of our friends
Message-ID: <199509060418.AA09907@metronet.com>

> One of my props is a "learner's set", the wire line equivalent of a code
> practice oscillator, consisting of key and sounder built onto a common wooden
> base. Stamped on the moving arm of the sounder is, would you believe,
> E. F. Johnson, Waseca Minn.
>
> And I've got another sounder that was made by the Wm. Nye Co. of Bellingham,

> Wash.
>

If my memory servs me correctly, Johnson inhereted the telegraph line from Signal Electric. they continued to make the KOBs and sounders for quite some time. There was a market. Here in Texas, the Sante Fe RR used telegraphy up until 1967. And I think the Flory School of Telegraphy in several Texas cities and Oklahoma had students into the mid 50s.

And of course, Nye inherited the Johnson line. I believe that was in the early 70s. So there would not have been a market for sounders.

73 de Neal, K5RW
Dallas, TX

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: paul Veltman <veltman@netcom.com>
Subject: TV-7D Manual
Message-ID: <Pine.3.89.9509051740.A11897-0100000@netcom23>

A friend of mine picked up a TV-7D tube tester at a local surplus house. He has the book with the individual tube setup values, but needs the technical manual. Can one of you give me a source?

Thanks,

Paul WA6OKQ

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: dgf@netcom.com (David Feldman)
Subject: US Gov't Surplus auction - ads in WSJ
Message-ID: <199509061700.KAA12408@netcom14.netcom.com>

For the last few weeks I've been seeing ads in the wall street journal about US Government surplus auctions. One of the categories is electronic stuff (including tubes and such). I called for one of the catalogs, and I saw Large quantities of various tubes - including some 6146 types (10-20K quantity lots). I pitched the catalog, not having any real interest in such quantities. I saw in today's wsj an announcement of one of the auctions, due in mid september, I think based somewhere in michigan. What this tells me is that one way or the other I think we're going to see some BA tubes appearing on the market in large quantities, perhaps at good prices, for maybe the last time.

Just for amusement.

73 Dave WB0GAZ dgf@netcom.com

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: John Shriver <jas@shiva.com>
Subject: Re: US Gov't Surplus auction - ads in WSJ
Message-ID: <199509061747.NAA18460@shiva-dev.shiva.com>

This is nothing new. Good old DoD must auction off 500,000 tubes a month. I watched what happened on auction 31-5440 (2 June 1995). The bidders were mostly places you would all recognize: Fair Radio Sales, Davilyn, Richardson Electronics, Stephen Melkisethian (Angela Instruments, selling to audio folks), Tucker Electronics, Daily Electronics, etc.

The winning bidder in quite a few cases was Richardson, who was listed in the bid document as the folks who sold some of them to the DoD in the first place. For instance, they bought Cetron 807's back for $4.50 each. In the case of the many lots of GE 6550A's, they paid MORE than the DoD paid in the first place: $14 each! But that is a type for which there is a large market: guitar amps, audio, and hams.

On the other hand, a lot of 12,000 6EB8's went (not to Richardson!) for $0.01 each.

These auctions are clearly set up to favor the big players. (Well, really to have the lowest overhead for DRMS.) Typical lots are 2000 tubes, some are 20,000 tubes! Most of us just can't float that sort of cash.

The DoD is clearly the main conduit for NOS tubes into the marketplace. They bought enough tubes to fight WW-III as a conventional war, using all the surplus electronics equipment from WW-II and Korea! They were still buying in BIG quantities in the 1980's. (Without them, I bet GE and Sylvania would have shut down the tube lines far earlier.)

I suppose watching the auction prices will tell you what the floor price is going to be for these tube types on the wholesale market. (Yes, there is a wholesale NOS tube market, conducted via FAX machines around the country.)

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Fire Bottle archive handler <firebotl@jackatak.theporch.com>
Subject: Re: Who was Frank C. Jones
Message-ID: <9509052121.aa21517@jackatak.theporch.com>

Al Woodhull <aswNS@hamp.hampshire.edu> wrote:
> > Who was Frank C. Jones?
> His call is (was?) W6AJF. (I don't know if he is still alive).
He is "current" in the callbook, Born 12 February 1903, so he is 92+
and had the energy in 1989 to reup his call for another 10 years...

I don't know if the gent is still going, but based upon his prodigious
output, I doubt he would just "fizzle out" quietly! ;^)
--
73
Jack, W4PPT/Mobile (75M SSB 2-letter WAS #1657/#1789 -- both all mobile! ;^)
            - - - BoatAnchor Mailing List Archiver/Owner - - -
firebotl@jackatak.theporch.com   ----   listown@jackatak.theporch.com

---

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: wier@bobcat.etsu.edu (Bob Wier)
Subject: Re: WTB: Heath DX60B
Message-ID: <9509060215.AA02154@bobcat.etsu.edu>

|If you don't have access to the packet bbs for-sale stuff, try a telnet to
|137.80.1.23. Login with your callsign and first name as password. To get
|to the SALE area, type "a sale". Last time I did a "L", there were over 140
|recent sale items listed, one of which was a DX-60B.
|
|73 de Jack
|
|At 07:11 AM 9/5/95 -0500, bgraham@tecnet1.jcte.jcs.mil wrote:
|>I'm in the market for a DX-60B.
|>
|>Bill
|>N5LMX/DA1WG
|>
|>

I just checked this out - the link is a bit slow (not suprising) but there
are a number of BAs listed there - things that caught my eye were an SB-220,
and an SB-110A (unfortunately I don't have any money at the moment :-)

THANKS for posting this... 73 de WB5KXH

-----   Round Up the Usual Disclaimers!   -----
  Bob Wier, keeper of the Photo-3D, Icom radio (WB5KXH),
    Overland Trails, and Motorola HC11 mailing lists
               wier@bobcat.etsu.edu

"Kentucky women are possessed of strong stomachs. It is not
considered an insult to invite them to take a drink."
- Silverton Standard May 19th, 1901

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: afpgreg@state.me.us (Paul V. Gregory)
Subject: WTB: ARC-5 Roller Inductor
Message-ID: <199509061401.KAA05363@gatekeeper.ddp.state.me.us>

Ahoy!

I'm in great need for the above as found in BC-459 (7-9 Mc) and (I think) BC-458 (3-6 Mc) transmitter. Anyone able to spare one in order for me to get my first ARC transmitter on the air?

TIA es 73 de KB1AOC, Paul

From boatanchors@theporch.com Wed Sep 6 18:49:00 1995
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: WTB: Command Set transmitters, nameplates
Message-ID: <9509061727.AA06079@syseng1.se.melpar.esys.com>

Looking for the following Command Set items:

T-19/ARC-5 3-4 MHz transmitter, complete. Prefer unmodified unit or one with original antenna post and all data plates w/no extra FP holes.

Nameplate, top cover, "T-22/ARC-5", blue (need one)

Nameplate, front panel, "Tuning Instructions", blue (need two)

email reply to pbock@melpar.esys.com

73,

Paul, K4MSG

From boatanchors@theporch.com Wed Sep 6 10:11:00 1995
From: Jeffrey Herman <jeffrey@math.hawaii.edu>
Subject: WTB: Telegraph Sounder

Message-ID: <Pine.SUN.3.91.950905183155.15546C-100000@kahuna>

Okay, all this talk of telegraph sounders has perked my interest. Does anyone have one (any condition) for sale? I recall seeing one within the last week but can't remember where (maybe wrecked.radio.swamp?).

Jeff NH6IL